



600.1170

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re: Application of: James Richard BELANGER, et al.
Serial No.: 09/955,826
Filed: September 19, 2001
For: BLANKET CYLINDER WITH INTEGRATED
COMPRESSIBLE LAYER
Art Unit: 2854
Examiner: Andrea H. EVANS

Mail Stop: APPEAL
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 27, 2004

APPELLANTS' BRIEF UNDER 37 C.F.R. § 1.192

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated March 1, 2004 in this application. An original and two copies of this brief are submitted herewith. The statutory fee of \$330.00 is paid concurrently herewith.

1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business at Kurfuersten-Anlage 52-60, D-69115 Heidelberg, Germany.

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2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 20 to 32 are pending. Claims 1 to 19 have been canceled. Claims 20 to 32 have been finally rejected as per the Final Office Action dated March 1, 2004.

The rejection to claims 20 to 32 thus is appealed. A copy of appealed claims 20 to 32 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS AFTER FINAL

A Response to the Final Office Action was filed on June 3, 2004 and was entered by the Advisory Action of July 2, 2004. No amendments after the Final Office Action were made.

5. SUMMARY OF THE INVENTION

The present invention provides a blanket cylinder (e.g. 20 in Fig. 2, see e.g. specification para. [0018]) in combination with a sleeve-shaped printing sock (e.g. 21 in Fig. 2, see e.g. specification para. [0018] and specification para. [0020]) comprising a rigid cylinder (e.g. 11 in Fig. 2, see e.g. specification para. [0019]), at least one inflatable bladder (e.g. 12 in Fig. 2, see e.g. specification para. [0019]) disposed on a circumferential surface of the cylinder (e.g. 20 in Fig. 2, see e.g. specification para. [0019]), a flexible cylinder covering (e.g. 13 in Fig. 2, see e.g. specification para. [0019]) disposed over an outer surface of the at least one inflatable bladder (e.g. 12 in Fig. 2, e.g. specification para [0019]); a sleeve-shaped printing sock (e.g. 21 in Fig. 2, see e.g. specification para. [0020]), the sleeve-shaped printing sock configured to be removably disposed over a circumferential surface of the flexible cover, the sleeve-shaped printing sock including a print layer (e.g. 26 in Fig. 2, see e.g. specification para . [0018]); and a fluid supply regulation unit (see, e.g., 15 in Fig. 3 (amended), and e.g. specification para [0022]), the fluid supply regulation unit regulating a fluid

pressure inside the at least one inflatable bladder (e.g. 12 in Fig. 2, e.g. specification para [0019]) to alter a compressibility of the blanket cylinder [see e.g. specification para.[0019], para. [0020]].

Air may used for regulation (See, e.g. [0008]).

A first heat exchanger unit (see, e.g., 100 in Fig. 3 (amended), and e.g. specification para [0022]) may be connected to the first fluid regulation unit and the first regulation unit may configured to circulate a first fluid between the inflatable bladder and the first heat exchanger.

A method for mounting a sleeve-shaped printing sock onto a blanket cylinder of an offset printing press is also disclosed, for example at [0010], [0011] and [0021] of the specification. The method includes at least partially deflating an inflatable bladder disposed at an outer region of the blanket cylinder; positioning the sleeve-shaped printing sock over one end of the blanket cylinder so that the printing sock at least partially surrounds a circumference of the blanket cylinder; inflating the inflatable bladder so that the printing sock fits tightly around the circumference of the blanket cylinder; and adjusting a compressibility of the blanket cylinder.

The fluid pressure may be adjusted inside the at least one inflatable bladder to set a desired printing quality. See e.g. [0011] of the specification.

The compressibility may be adjusted during a printing operation. See e.g. [0022] of the specification.

6. ISSUES

Whether claims 20 to 28 and 30 to 32 should be rejected under 35 U.S.C. § 103(a) as being unpatentable over Katz (U.S. Patent No. 6,161,478). Whether claim 29 should be rejected under 35 U.S. §103(a) as being unpatentable over Katz in vie w of Rau et al. (U.S. Patent No. 5,784,957).

7. GROUPING OF CLAIMS

Since the claims do not stand or fall together, the following groupings are appropriate:

Group I: Claims 20 to 26 and 28;

Group II: Claim 27
Group III: Claim 29;
Group IV: Claim 30;
Group V: Claim 31; and
Group VI: Claim 32.

8. ARGUMENTS

Group I

Claims 20 to 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Katz (U.S. Patent No. 6,161,478).

Claim 20 recites a blanket cylinder in combination with a sleeve-shaped printing sock comprising:

a rigid cylinder;

at least one inflatable bladder disposed on a circumferential surface of the cylinder;

a flexible cylinder covering disposed over an outer surface of the at least one inflatable bladder;

a sleeve-shaped printing sock, the sleeve-shaped printing sock configured to be removably disposed over a circumferential surface of the flexible cover, the sleeve-shaped printing sock including a print layer; and

a fluid supply regulation unit, the fluid supply regulation unit regulating a fluid pressure inside the at least one inflatable bladder to alter a compressibility of the blanket cylinder.

Katz '478 does not disclose "a blanket cylinder" as claimed but rather a printing cylinder with a hard analog coating. See col. 1, lines 34 to 50 and col. 3, lines 45 to 57.

It is respectfully submitted that it would not have been obvious to one of skill in the art to modify the printing cylinder of Katz for use as a blanket cylinder. Blanket or transfer cylinders used in offset printing have soft compressible surfaces, and the printing cylinder of Katz would not have been usable as a blanket cylinder, nor

would one of skill in the art have looked to the Katz printing cylinder for teachings related to blanket cylinders.

Moreover, the hard analox coating of Katz precludes compressibility as understood to one of skill in the art of blanket cylinder technology. Blankets are typically made compressible using air blown into rubber (which is considered incompressible in its solid state), or my microspheres placed into the rubber. The present invention provides inflatable bladders underneath a printing sock to provide the compressibility.

Katz '478 also does not disclose an inflatable bladder. Element 32 is not inflatable, and is not a bladder. It is sleeve.

Moreover, Katz '478 does not disclose "a fluid supply regulation unit, the fluid supply regulation unit regulating a fluid pressure inside the at least one inflatable bladder to alter a compressibility of the blanket cylinder."

No compressibility is altered in the hard analox printing cylinder of Katz. The hard analox coating always provides the same compressibility as that term is understood to one of skill in the art, i.e. no compressibility.

Withdrawal of the rejection to claim 20 and its dependent claims is respectfully requested.

Group II

Claim 27 recites the blanket cylinder in combination with the printing sock as recited in claim 20 wherein the fluid supply regulation unit regulates air.

Katz regulates hydraulic fluid and does not regulate air, as asserted incorrectly in the final office action.

Withdrawal of the rejection to claim 27 for this reason as well is respectfully requested.

Group III

Claim 29 was rejected as being unpatentable over Katz in view of Rau (U.S. Patent No. 5,784,957).

Claim 29 recites the blanket cylinder in combination with the printing sock as

recited in claim 20 further comprising a first heat exchanger connected to the first fluid regulation unit and wherein the first regulation unit is configured to circulate a first fluid between the inflatable bladder and the first heat exchanger.

Rau discloses a heat exchanger for a cylinder. There however is not motivation or teaching to use such a heat exchanger with the device of Katz, which only has fluid at the ends. Even if they could somehow be combined (and it is respectfully submitted that one of skill in the art would not do so), the uneven heating that would result would be disadvantageous and likely produce uneven print quality across the width of the cylinder.

Withdrawal of the rejection to claim 29 for this reason as well is respectfully requested.

Group IV

Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Katz (U.S. Patent No. 6,161,478).

Claim 30 recites method for mounting a sleeve-shaped printing sock onto a blanket cylinder of an offset printing press, the method comprising:

at least partially deflating an inflatable bladder disposed at an outer region of the blanket cylinder;

positioning the sleeve-shaped printing sock over one end of the blanket cylinder so that the printing sock at least partially surrounds a circumference of the blanket cylinder;

inflating the inflatable bladder so that the printing sock fits tightly around the circumference of the blanket cylinder; and

adjusting a compressibility of the blanket cylinder.

Katz is discussed above, and does not disclose a blanket cylinder or an inflatable bladder as discussed with respect to claim 20.

In addition, Katz does not disclose “adjusting a compressibility of the blanket cylinder” as recited in claim 30. The hard anilox sleeve of Katz does not alter compressibility. The mechanism is simply for fastening, and no compressibility is altered. As understood to one of skill in the art, Katz is incompressible regardless of

the pressure of the hydraulic fluid in Katz.

Withdrawal of the rejection to claim 30 is respectfully requested.

Group V

Claim 31 recites the method as recited in claim 30 further comprising adjusting a fluid pressure inside the at least one inflatable bladder to set a desired printing quality.

The fluid pressure in Katz does not set a desired printing quality, not does Katz so disclose such a step.

Withdrawal of the rejection to claim 31 for this reason as well is respectfully requested.

Group VI

Claim 32 recites the method as recited in claim 30 wherein the compressibility is adjusted during a printing operation.

Katz does not adjust any compressibility, and in addition the fluid pressure is not altered during a printing operation, and the cited section in Katz in the final office action does not state that any fluid pressure is altered during a printing operation. The fastening occurs before a printing operation.

Withdrawal of the 35 U.S.C. 103 rejection to claim 32 for this reason as well is respectfully requested.

Respectfully submitted,

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APPENDIX A:

PENDING CLAIMS 20 to 32 OF U.S. APPLICATION SERIAL NO. 09/955,826

Claim 20 (previously presented): A blanket cylinder in combination with a sleeve-shaped printing sock comprising:

- a rigid cylinder;

- at least one inflatable bladder disposed on a circumferential surface of the cylinder;

- a flexible cylinder covering disposed over an outer surface of the at least one inflatable bladder;

- a sleeve-shaped printing sock, the sleeve-shaped printing sock configured to be removably disposed over a circumferential surface of the flexible cover, the sleeve-shaped printing sock including a print layer; and

- a fluid supply regulation unit, the fluid supply regulation unit regulating a fluid pressure inside the at least one inflatable bladder to alter a compressibility of the blanket cylinder.

Claim 21 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 20 wherein the at least one bladder includes a plurality of bladders.

Claim 22 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 20 wherein the fluid supply regulation unit is connected to a first set of a plurality of bladders of the at least one bladder.

Claim 23 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 22 further comprising a second fluid supply regulation unit configured to supply a second fluid to a second set of inflatable bladders of the at least one inflatable bladder and to regulate a second fluid pressure inside the second set of inflatable bladders.

Claim 24 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 23 further comprising a first fluid line connecting the first fluid supply regulation unit to the first set of bladders and a second fluid line connecting the second fluid supply regulation unit to the second set of inflatable bladders.

Claim 25 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 24 wherein the first and second fluid supply regulation units are configured to regulate the first and second fluid pressures while the cylinder is rotating about the axis.

Claim 26 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 23 wherein first and second fluid lines include a rotary union configured to enable the first and second fluid to flow through the first and second fluid lines while the cylinder is rotating about the axis.

Claim 27 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 20 wherein the fluid supply regulation unit regulates air.

Claim 28 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 20 wherein the flexible cylinder covering includes a single-layer material and is disposed adjacent to the outer surface of the at least one bladder.

Claim 29 (previously presented): The blanket cylinder in combination with the printing sock as recited in claim 20 further comprising a first heat exchanger connected to the first fluid regulation unit and wherein the first regulation unit is configured to circulate a first fluid between the inflatable bladder and the first heat exchanger.

Claim 30 (previously presented): A method for mounting a sleeve-shaped printing

sock onto a blanket cylinder of an offset printing press, the method comprising:

- at least partially deflating an inflatable bladder disposed at an outer region of the blanket cylinder;
- positioning the sleeve-shaped printing sock over one end of the blanket cylinder so that the printing sock at least partially surrounds a circumference of the blanket cylinder;
- inflating the inflatable bladder so that the printing sock fits tightly around the circumference of the blanket cylinder; and
- adjusting a compressibility of the blanket cylinder.

Claim 31 (previously presented): The method as recited in claim 30 further comprising adjusting a fluid pressure inside the at least one inflatable bladder to set a desired printing quality.

Claim 32 (previously presented): The method as recited in claim 30 wherein the compressibility is adjusted during a printing operation.

FORM PTO-1083

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AP/ Irw
Docket No.: 600.1170
Date: July 27, 2004

In re application of: **James Richard BELANGER et al.**
Serial No.: 09/955,826
Filed: September 19, 2001
For: **BLANKET CYLINDER WITH INTEGRATED COMPRESSIBLE LAYER**

Sir:

Transmitted herewith is an **Appellants' Brief under 37 C.F.R. 1.192** (10 pages, in triplicate) in the above-identified application.

- ☐ Small entity status under 37 C.F.R. 1.9 and 1.27 has been previously established.
☐ Applicants assert small entity status under 37 C.F.R. 1.9 and 1.27.
☒ No fee for additional claims is required.
☐ A filing fee for additional claims calculated as shown below, is required:

(Col. 1)		(Col. 2)		SMALL ENTITY		OR	LARGE ENTITY		
FOR:	REMAINING	HIGHEST		RATE	FEE		RATE	FEE	
	AFTER	PREVIOUSLY	PRESENT						
	AMENDMENT	PAID FOR	EXTRA						
TOTAL CLAIMS	* Minus 20	=	0	x \$ 9	\$		x \$ 18	\$	
INDEP. CLAIMS	* Minus 3	=	0	x \$ 43	\$		x \$ 86	\$	
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+	\$145	\$	+	\$290	\$
				TOTAL:	\$	OR	TOTAL:	\$	

- * If the entry in Co. 1 is less than the entry in Col. 2, write "0" in Col. 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

- ☐ Also transmitted herewith are:
☐ Petition for extension under 37 C.F.R. 1.136
☐ Other:

- ☒ Check(s) in the amount of **\$330.00** is/are attached to cover:
☐ Filing fee for additional claims under 37 C.F.R. 1.16
☐ Petition fee for extension under 37 C.F.R. 1.136
☒ Other: **Appeal fee under 37 C.F.R. 1.17(c)**

- ☒ The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.

- ☒ Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.
☒ Any patent application processing fees under 37 C.F.R. 1.17.
☒ Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.

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I hereby certify that the documents referred to as attached therein and/or fee are being deposited with the United States Postal Service as "first class mail" with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on July 27, 2004.
DAVIDSON, DAVIDSON & KAPPEL, LLC

BY:
Oliver Platz